



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellant: William E. James Examiner: Tam Nguyen  
Application No.: 09/674,996 Art Unit: 3764  
Filing Date: Nov. 2, 2000 Confirmation No.: 1327

Title: Automatically Variable Stride Walk-Run-Stepper Pedal Exerciser

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**APPEAL BRIEF**

(under 37 CFR 41.37)

Revised per Non-Compliant Notification of 2/02/09

Mail Stop Appeal Brief -Patents

Commissioner for Patents

P.O. Box 1450

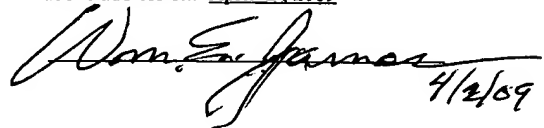
Alexandria, VA 22313-1450

Dear Sirs:

This Appeal Brief follows appellant's Notice of Appeal of Nov. 7, 2008, and responds to Office Action of Nov. 16, 2007 (to which appellant had filed a Reply Brief under 37CFR 41.41, Jan. 12, 2008 and subsequently received "Improper Reply" Notice of Sept. 25, 2008).

The Office Action, Nov. 16, 2007 responded to appellant's Appeal Brief of June 12, 2007.

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4/2/09

**1. Real Party in Interest:** William E. James

**2. Related Appeals and Interferences:** Appeal Brief of Mar. 21, 07 , corrected version June 12, 07.

**3. Status of Claims:**

- Claims 1 - 21 are canceled ;
- Claims 24, 25, 28 - 35, 38 and 39\* are withdrawn as subject to restriction due to rejection of claim 22 .
- Claim 41\*, also withdrawn, is a second independent claim and has not received any detailed Action .

\* Claims 39 and 41 seem to have been inexplicably dropped from consideration. Both were “subject to restriction” in the Office Action , 12/01/2003 . Claim 41 was missing in Action, 10/04/2004 and claim 39 was dropped without mention in Action, 11/16/2007. Appellant assumes claims 39 and 41 are withdrawn.

- The following claims are being appealed :

Claims 22, 23, 26, 27, 36 and 37. These claims are rejected under 35 USC 112, 1<sup>st</sup> Par. as not being described fully, clearly and concisely enough in the Specification and drawings for one skilled in the art to understand. and apply.

- NOTE: Appellant continues to request reconsideration of the restriction and withdrawal of withdrawn claims. (Please note reference under “Petition”, next page).

**4. Status of Amendments:**

Appellant's Amendment filed Apr. 30, 2004 (originally sent Feb. 26, 2004 then revised per format requirements of Advisory, Apr. 20, 2004) was not entered per Advisory Action, Oct. 4, 2004.

Appellant filed a Petition to the Director, Jan. 18, 2005, re: Errors in Final Action., including petition against the restriction and withdrawal of claims as listed above, pg 2. This was dismissed, Jun. 21, 2006 as a "matter for appeal".

Appellant filed an Appeal Brief, June 12, 2007 to which the examiner responded with Office Action of Nov. 16, 2007 with a new ground of rejection (Amendment of Apr. 30, 2004 still not entered).

**5. Summary of Claimed Subject Matter:****Independent Claim 22 :**

The invention is a new type of stationary pedal exerciser intended to fill a gap between prior art pedal exercisers - which do not allow realistic, normal variable stride walk-run-jog action - and the typical treadmill, which does. Prior art pedal devices, as outlined in the Specification (pgs. 2 - 5 ) are incapable of realistic, normal walk-run-jog stepping type strides (with essentially all the user's weight on the stepped down , striding foot) - especially with variable stride lengths as on a treadmill - because : 1) they do not return the pedal (if providing variable stroke) to a constant forward position for step down (necessary for continual in-place normal walking , running ) and 2) they do not return the pedal to a forward position at the end of each stride independently of stride (prior, next, or any stride). Instead, they have dependent action, with the returning pedal always moving a distance equal to the rearward stroke of the opposite pedal as in a typical "strider" exerciser where the user must stay at a centered position and swing his feet, always equally weighted on the pedals, in equal and opposite directions about the center. Attempts have been made at variable strokes with crank-controlled motion and also reciprocating pedals clamping and releasing moving drive belts, but these still do not provide a constant forward position and do not have independence of return (from varying rearward positions) that is necessary to maintain a constant forward step-down position. With a varying forward position a user would have to move his position with each change of stride, trying to play "hop scotch" with the varying forward position or maintain more or less equal weight on the two pedals as on a "strider". It is obvious to one who has walked or run on treadmills and tried "striders" and other pedal devices that the realistic walking action as on a treadmill is not possible on a "strider" or any other prior art pedal type exerciser. These type devices have been cited in Office Actions .

**Claim 22** (rejected): The invention per claim 22 embodies (claim 22, ln. 4 :) "...a substantially constant forward step-down position...", (ln. 6:)..."primarily back and forth strokes variable rearwardly from said forward step-down position..." and (ln. 8:)..."**means for returning** said foot pedals to said forward step-down position at the end of each stride **independently of stride length**." This independence of return from stride or stroke and the constant forward step-down position it enables is essential for a pedal device to support variable normal walk-run-jog strides from stride to stride as described in the Specification (pg. 4, ln. 8 -37).

**NOTE:** See next page, "Seven Versions of the invention" for references to described structure in the Specification including page, line, Figs. ( page and line numbers as in originally filed specification). All seven Versions of the invention meet the limitations of claim 22 (and claim 41).

**5. Summary of Claimed Subject Matter (cont'd.):****Seven Versions of the invention:**

All seven versions of the invention fulfill the limitations of claim 22 (and 41). The “means for returning” as claimed is described in the Specification for the seven versions of the invention as follows: (NOTE: This is intended to avoid much repetition, since twenty claims relate to seven versions. In the Argument section, each claim will show reference to one or more of these versions which, then reference the Specification and Figs.):

**Version A:** (Spec. pg.:12- 14 ; Figs. 1 - 3) A mechanical linkage train (pg. 13, ln. 4 ) (the **means for returning**) comprising Link 20 , Lever 22, Link 26, Bellcrank 28 and Link 30 connect downward motion (only) of Left Trackbar 13 and thus, Left Pedal 17 with Right Pedal 16 forward motion. Thus, a relatively small downward displacement of Pedal 17, supported by Spring Damper 15 (pg. 12, ln. 15 ) , under a user’s weight at step-down causes a much longer move of the Right Pedal 16 forward (**independently of stride**). Likewise, a similar linkage train is shown for returning Left Pedal 17 forward in response to step-down on Right Pedal 16. The resultant action is described on pg. 15, ln. 1- 37 of the Specification. The pedal just ending a stride will quickly return to the forward position regardless of stride length, even without any following stride, simply by the user’s ending the stride by stepping on the opposite, forward pedal. Then, the following stride can vary from zero to as long as the machine will allow, since the other ( just returned ) pedal will be at the constant forward step-down position very soon after the end of the last stride.

All seven versions of the invention operate in essentially the same manner, “end of stride” or step-down of the forward foot on the forward pedal and lifting of the rear foot at the rear pedal causing the rear pedal to return to the constant forward step-down position - independently of stride.

**Version B:** (Spec. pg. 18, ln.21 thru pg. 19 ; Figs. 4 - 5) Pneumatic cylinders 38, 39 and 42, 43 and tubing 44, 45 are employed in master-slave fashion (39 to 42) (the **means for returning**) to connect the short downward displacement of one pedal (17) at step-down to cause a much longer and faster return forward of the opposite, rear pedal (16) (**independently of stride**) and vice versa (step-down on 16 causes 17 to return)..

**Version B-2:** (Spec. pg. 20, ln. 1 - 33 ; Fig. 7) This is an externally powered pneumatic return version not listed in the Office Action, Oct. 30, 2002 species list. A Cylinder 43 (**means for returning**) returns Pedal 17 (**independently of stride**) when opposite Pedal 16 is stepped on, switching on air pressure from an external source via Limit Valve 46 and vice versa. Very little downward displacement of the forward pedal is required. A small motor-compressor could be part of the machine to provide compressed air

## 5. Summary of Claimed Subject Matter (cont'd.)

**Version C:** (Spec. pg. 20, ln. 34 - pg. 26, ln. 18; Figs. 9 - 13) Here an electric Motor 69 drives each pedal rearward during its weighted stride stroke. A Spring 67 (means for returning), compressed by the motor drive through Drive Wheel 73 driving Pedal 16 rearward returns Pedal 16 forward (**independently of stride**) upon lifting of the foot, releasing the pedal from Drive Wheel 73 as Spring Damper 14 raises Pedal 16 as in version 'A' back up to its unloaded level.

**Version D:** (Spec. pg. 26, ln. 19 - pg. 28, ln. 33 ; Figs. 14 - 16) This user- powered version employs a Flywheel/Resistor 96 to regulate pedal stride motion. Weighted Pedal 16 is pushed rearward, aided by gravity if the machine is inclined, driving the flywheel/resistor through Drive Wheel 91 and extending Band Spring 98 (means for returning) which returns the pedal forward when the pedal is unweighted at end of stride (**independently of stride**).

**Version E:** (Spec. pg. 29, ln. 8 - pg.34, ln. 18 ; Figs. 17 - 20) This pneumatic user- powered version employs an Air Bag 116, 117 under each Pedal 16, 17 **to cushion each step and pump air to an Air Tank 120** for use in propelling pedal return strokes. Long Bellows 118, 119 act as light weight, long stroke cylinders (**means for returning**) to return each corresponding Pedal 16, 17 forward as it is unweighted (**independently of stride**). Air Bag 116 is unpressurized as Pedal 16 is unweighted as in Fig. 19 which causes Pilot Valve 123 to duct return air pressure to Pedal 16 Bellows 118. This system allows using pedal deceleration energy as each Pedal 16, 17 is stopped at the forward position by corresponding Stop Bellows 131, 132 (**means to recuperate energy of returning foot pedals**). These pump compressed air to the Air Tank 120, thus recuperating pedal return velocity energy for the next return. This would allow faster returns with less step-down displacement and thus, faster (running) strides. Other sources of compressed air energy may include Arm (exercise) Levers 135 as shown in Fig.20 (pg. 33, ln.37).

**Version E-2:** (Spec. pg. 34, ln. 19 - pg. 35, ln. 16 ; Fig. 22) This is a powered pneumatic version where motor driven Pump 140 pressurizes Air Tank 120 for pedal return and acts to power and regulate rearward (stride) speed. This is accomplished by Pilot Valves 123, 124 controlled by pressure rise in Air Bags 116,117 , sensing step-down to drive via return bellows 118 & 119 (means for returning) the same Pedal (16 for 116 and 123) rearward and pressure drop or lifting of the foot to return the Pedal (**independently of stride**). Also shown is a Motor 69 Speed Control 84 which varies pedal speeds in response to rearward force of the user's foot on the pedal.

**5. Summary of Claimed Subject Matter (cont'd.):**

**Dependent Claims Argued Separately:** (all dependent on Claim 22 unless as noted)

(**NOTE:** The following dependent claims' summaries also reference one or more of the above (pg. 5 -6) version tie-in descriptions to the Specification with reference to page, line and Figs.)

**Claim 23** (rejected): "...means for returning returns ... pedals to said forward step-down position using step-down energy."

This is shown in **Version A** as described above (pg. 5 ) where the linkage train (**means for returning**) causes step-down force and displacement of one pedal (**independently of stride**) to return the opposite pedal, in **Version B** where the master-slave pneumatic cylinders (**means for returning**) accomplish the same result (and adds cushioning of step-down), and **Version E** with the Air Tank 120 accumulating step-down produced air pressure energy used for pedal return.

(Note: Please refer to Version descriptions above, pg. 5 -6 for delineation of "means for ... and function".)

**Claim 26** (rejected): "...in accordance with claim 22 ...means for returning includes fluid means."

This is shown in **Versions B, B-2, E and E-2**, the fluid being air.

**Claim 27** (rejected): "...in accordance with claim 22 ...means for returning comprises spring means."

This is shown in **Versions C and D**.

**Claim 36** (rejected): "... according to claim 22 ...including cushion means integral with said foot pedals or said support means to cushion the user's step-down..."

This is shown in **all versions** but is especially visible in **Version B** (Fig. 4 & 5 ; Specification: pg. 18, ln. 21 - pg.19, ln. 34).

**Claim 37** (rejected): "... according to claim 22 ...means for returning employs stride energy."

This is shown in **Version D** where stride extends Band Spring 98 for pedal 16 which then returns the pedal at end of stride (Fig. 15 ; Specification; pg. 27, ln. 34 - pg. 28, ln. 15).

**5. Summary of Claimed Subject Matter (cont'd.):**

**Dependent Claims Not Argued Separately (withdrawn)** (for reference if required):

Claim 24 (withdrawn): "...arresting means, energy conversion means and energy storage means to recuperate energy of returning said foot pedals."

**Versions E and E-2** (above, pg. 6) have Stop Bellows 131, 132 which convert pedal return velocity energy while stopping the pedal at the forward position into compressed air in Air Tank 120, recuperating energy to be used for pedal return.

Claim 25 (withdrawn): "... power and control means connecting the downward force and deflection of a forward one of said pedals to the rearward one of said pedals to propel said rearward pedal forward."

**Version B-2** (pg. 6) is the simplest example of this with an external source of compressed air power being controlled by limit valves upon downward deflection of one pedal to return the opposite pedal. **Versions E and E-2** similarly have separate pilot valves to control compressed air power to actuate pedal return in response to step-down on the opposite pedal.

Claim 28 (withdrawn): "...further including speed regulating means to control rearward motion of said foot pedals."

This is shown in **Version A**, with the striding pedal's (16) rearward motion connected to the opposite pedal's (17) upward motion (inverse of pedal 16 return forward being connected to pedal 17 downward motion) which is regulated by Spring Damper 15 as described in the Specification (pg. 16, ln. 24 - 33). **All Versions** show speed regulation of some kind, by drive wheel under the pedal in **Versions C and D**, and by fluid flow resistance in **Versions B, E, and E-2**, while **C and E-2** have motor drive regulation.

Claim 29 (withdrawn): "...according to claim 28...regulating means comprises spring and damper means."

This is shown in **Version A** as described for claim 28.

Claim 30 (withdrawn): "...according to claim 28...regulating means comprises rotary resistance means."

This is shown in **Version D**.

Claim 31 (withdrawn): "... according to claim 22...motorized speed regulating means."

This is shown in **Versions C and E-2**.



**5. Summary of Claimed Subject Matter (cont'd.):**

Claim 32 (withdrawn): "... according to claim 31 ...regulating means comprises frictional drive means..."

This is shown in **Version C** where Drive Wheels 73, 74 drive Pedals 16, 17 and also in **Version D**.

Claim 33 (withdrawn): "... according to claim 31 ...regulating means comprises fluid pumping means ..."

This is shown in **Versions E** and **E-2**.

Claim 34 (withdrawn): "... according to claim 31 ...sensor means to sense the user's foot force rearward or forward on said foot pedal ...to vary the speed of said motorized means in response to said foot force."

This is shown in **Version C** (Fig. 13 ; Specification: pg. 24, ln. 27 - pg. 26, ln. 18) and in **Version E-2** (Fig. 22 ; Specification: pg. 34, ln. 19 - pg. 35, ln. 16).

Claim 35 (withdrawn): "... according to claim 22 ...including braking means to brake forward motion of said foot pedal when said user is standing on said pedal."

This is shown in **Version C** (Fig. 12 ; Specification: pg. 23, ln.31 - pg. 24, ln. 26)

Claim 38 (withdrawn): "...claim 22 wherein said means for returning employs energy sources external to a user."

This is shown in **Version B -2** (Fig. 7 ; Specification; pg. 20, ln. 1 - 33).

Claim 39 (withdrawn): "... of claim 38 wherein said external energy sources include fluid power means."

This also is shown in **Version B -2** as above, claim 38.

Claim 40 (withdrawn): " The exerciser of claim 22 wherein said means for returning employs stored energy from a plurality of sources."

This is shown in **Version E** (Fig. 20 ; Specification: pg. 33, ln. 37 - pg. 34, ln. 10).

**6. Grounds of Rejection to be Reviewed on Appeal:**

**Please review:**

**Rejection under 35 USC 112, 1<sup>st</sup> Par.** ( claims 22, 23, 26, 27, 36 and 37 ):

Claims 22, 23, 26, 27, 36 and 37 stand rejected under 35 USC 112, 1<sup>st</sup> Par. as being inadequately described in the Specification and drawings. ( For evidence relied on see Application Specification and Drawings, Argument, pg. 11 & Evidence Appendix )

**\* Requirement for restriction and withdrawal** : (claims 24, 25, 28 - 35, and 38 - 41) (\* if possible)

Claims 24, 25, 28 - 35, and 38 - 40 stand subject to restriction (due to rejection of claim 22) ( For evidence relied on see Application Specification and Drawings, Argument, pg. 11 & Evidence Appendix )

Claim 41 is an independent claim similar to claim 22 and has received no Office Action commentary.

## 7. Argument:

### **Rejection under 35 USC 112, 1<sup>st</sup> Par.:** (Claims rejected: 22, 23, 26, 27, 36 and 37)

Evidence relied on: Appellant's Application Specification and Drawings.

The examiner (Office Action, Nov. 16, 07) does not state to which particular version or species he refers nor by page, line or figure, but since he refers to: "air in the cylinders" (his pg. 3, ln. 2), appellant assumes it is in reference to Species B or **Version B** (pg. 5 herein). This version is described in the Specification (Figs. 4 - 6) on page 18, ln. 21 (pages and lines as originally submitted by appellant, July 1999) and is a pneumatic, user-powered version.

The Specification description, starting pg. 18, ln. 35, is simple and straight forward (key words underlined for emphasis): "A Right Track Bar Cylinder 38 ( note that this is a vertical cylinder responding to step-down force only on the Right Pedal 16 ) ...containing a Right Support Spring 40 supports a Right Track Bar 12 and a corresponding Right Pedal 16 and provides pressurized air through a Right to Left Tubing 44 to a Left Return Cylinder 43 which pushes Left Pedal 17 forward as Right Pedal 16 is pushed downward." Continuing on pg. 19, ln. 1, it is explained similarly how Left Track Bar Cylinder 39 (responding to step down on the Left Pedal 17 ) is linked through Left to Right Tubing 45 to Right Return Cylinder 42 to push Right Pedal 16 forward (return) as Left Pedal 17 is pushed downward. In Fig. 4 it can be seen that, as described, Tubing 44 connects the output end of Right Track Bar Cylinder 38 (or the Right Pedal "step-down cylinder" ) to the Left Return Cylinder 43 to return the Left Pedal 17 as the Right Pedal 16 is pushed downward at step-down on the Right Pedal. Likewise, Tubing 45 can be seen to connect the Left Track Bar Cylinder 39 to the Right Return Cylinder 42 to push Right Pedal 16 forward as the Left Pedal 17 is pushed downward upon step-down on same. In Fig. 4 the two Tubes 44 and 45, with air flow arrows, are shown clearly to connect the vertical (step-down) cylinder of one Pedal to the rear of the opposite Pedal's Return Cylinder, the Tubes crossing over each other at the rear (left side of drawing) of the exerciser so that step-down on either pedal will cause the return of the opposite.

From the above, it is obvious that pedal return is dependent only on step-down on the opposite pedal (end of stride) and is independent of stride or length of travel of the opposite pedal (or any pedal) as recited in Claim 22, there being no operating connection between the two return (horizontal) cylinders 42 and 43.

In contrast to the above description from the Specification, the Examiner states ( Office Action, Nov. 16, 07, pg. 3, ln.4 ): "In other words, as one pedal moves backwards, the other moves forward at the same rate and thus distance." Also, ( pg. 3, ln. 8): "...it is not clear to the examiner which components of the invention allow for a first foot pedal to return to the step-down position at the end of each stride independently of stride length of the second foot pedal."

**7. Argument (continued):**

The examiner's interpretation is patently wrong. In the Specification and drawings, as outlined above, no operating connection whatsoever is described or shown between the pedals (in any of the seven versions-see below) that would cause one pedal to move forward as the opposite pedal moves rearward at the same rate or any rate.

It was explained early ( pg. 4 ) in the Specification, in fact, that ( ln. 28 ): "...machines directly connecting the pedals for equal and opposite back and forth motion do not provide realistic, normal walk-run action with variable length strides." The first four pages of the Specification outline and explain "the problem" in the field of pedal type exercisers, their inability to provide variable stride normal walk-run action, and that the problem is a result of the typical equal and opposite (dependent) pedal connection and action. Then, on page 5 the invention's objectives are summarized, especially line 16: " to provide a walk-run reciprocating pedal exercise machine in which the return of each pedal forward to the step-down position from varying stride lengths is initiated and caused by the user's front foot step-down and accompanying opposite foot lift-off action, these two essentially concurrent actions always marking each end of stride." Appellant then went on to describe fully **seven versions** of the invention in detail (described above, pgs. 5 - 6) with short descriptions, each paraphrasing a referenced section of the Specification ). All seven versions were designed to meet the above stated objective and are described with drawings to show that pedal return is dependent only on "end of stride" and is independent of stride (length)

Claim 22 (rejected): As explained above it is obvious that pedal return is dependent only on step-down on the opposite pedal (and concurrent lifting of the foot on the pedal about to return) or end of stride and is independent of stride or travel of the opposite pedal (or any pedal) as recited in Claim 22, there being no connection between the two (horizontal) Return Cylinders 42 and 43. **All seven versions** as described in the Specification and above ( pg. 5 -6 ) **meet the requirements of claim 22**.

Claims 23, 26, 27, 36 and 37 (rejected), all dependent on claim 22 , relate to the various versions of the invention as described above, section 5, Summary of Claimed Subject Matter ( pg. 4 - 9 ) , each of the claims being **supported by structure as described** for one or more of the **seven versions** (pg. 5 -6) as outlined starting on pg. 7 , above and as follows: (continued next pg.)

**7. Argument (continued):**

Claim 23: (Refer to pg. 7 above) (means for returning ....using step-down energy) This claim is supported by three of the seven versions, one being **Version B** (pg. 5), which is described above, pg. 11 with quotations from the Specification. As explained above, it is step-down alone, with the user's weight and the resulting downward pedal displacement (energy), that is employed to return the opposite pedal to the forward step-down position. **Version A** (see pg. 5), a mechanical version, and **Version E** (pg. 6) also support claim 23. In each the description in the Specification as related in each Version description is as complete (including drawings) as that for the above quoted description (pg. 11) for Version B.

Claim 26: (see pg. 7) ( means for returning includes fluid means ) Claim 26 is supported in **Versions B, B-2, E, and E-2** as outlined in the Version descriptions, pg. 5 -6, with reference to the Specification. The fluid means as described above (pg. 11) for Version B is air.

Claim 27: (pg. 7) (means for returning comprises spring means) Claim 27 is supported in **Versions C and D** as described in the Version descriptions, pg. 6. In **Version C** Spring 67 is the return means for Right Pedal 16, while Spring 68 returns Left Pedal 17 (Figs. 9 -11). The springs are compressed by Motor 69.

Claim 36: (pg. 7) ( ...including cushion means ...to cushion user's step-down) Claim 36 is supported in **all seven Versions** and is especially visible in **Version B** as described, pg. 6. Springs 40 and 41 (within cylinders 38 and 39 respectively, Fig. 5) act to cushion step-down as well as return pedals back up to "neutral" after each step.

Claim 37: (pg. 7) ( ...means for returning employs stride energy) Claim 37 is supported in **Version D** as described, pg. 6. The Band Spring 98 is extended during the stride stroke of Pedal 16 (Figs. 14 & 15) and when the stride ends with step-down of the opposite foot on Pedal 17 (which would have returned forward at the end of the prior stride) and lifting of the foot at Pedal 16, the Pedal 16 will be returned forward under the spring tension produced during the stride.

All seven versions meet independent claim 22 and produce essentially the same result: at "end of stride", that is, upon step-down of the forward foot on the front pedal and/or lifting of the rearward foot at the rear pedal, the rear pedal returns to the forward step-down position independently of stride and at velocities substantially greater than stride velocity. The dependent claims relate to various means for returning as outlined in one or more of the versions as shown above.

**7. Argument (continued) :**

**\* Restriction and Withdrawal of Claims :** ( Claims withdrawn: 24, 25, 28 - 35 and 38 - 41 )

( \* Please ignore this section if not possible or appropriate to review under this appeal. Applicant had requested reconsideration of the restriction in the Amendment, April 30, 2004 (not entered) and the Petition to the Director , Jan. 18, 2005 to review the non-entry was dismissed as "matter for appeal. )

Evidence relied on: Appellant's Specification and Drawings and Appeal Brief, June 12, 2007.

Claims 24, 25, 28 - 35 and 38 - 40 were withdrawn as having no generic claim. These claims are dependent on claim 22 primarily or secondarily. Appellant believes claim 22 is allowable as argued above and is generic to all versions of the invention as described. Claims 24, 25, 28 - 35 and 38 - 40 all describe further ramifications of the device as claimed in claim 22, each of the claims being supported by **structure** as **described for the seven versions** of the invention above in section 5 (dependent claims starting pg. 7).

Claim 41 is an independent claim and has received no Action commentary. As explained above, pg. 4, all versions of the invention exhibit return of a pedal upon step-down on the opposite pedal, with return not limited to stride motion or velocity of the opposite pedal. Therefore, all seven versions structurally support this claim (see p. 5 ): "... returning ...pedals .... at velocities substantially greater than stride velocity."

Argument Summary:

All of this shows that appellant has provided a complete and clear description of the construction and operation of the invention, going beyond the norm to describe a wide variety of designs, all fully and clearly described in the Specification and shown in the drawings, that accomplish the stated objectives in the Specification and all of which fully meet the independent claim 22 (and 41). As argued above, appellant believes dependent claims 23, 26, 27, 36 and 37 ( rejected ) (and all of claims 23 -40) are all valid claims as further variations of the means recited in claim 22, each being supported by structure in one or more of the versions as explained above, pgs. 5.-9 & 11 -13.

In summary, appellant believes all the rejected claims (and withdrawn claims) as argued above are valid and allowable and are clearly and fully supported by description of seven versions in the Specification and drawings more than adequately to fulfill the requirements of 35 USC 112, 1<sup>st</sup> Par.

**8. Claims Appendix:**

22. (rejected) A reciprocating foot pedal exerciser for stepping, walking, jogging and running in place, enabling automatically variable length strides, comprising:

foot pedals for receiving user foot action at a substantially constant forward step-down position on the exerciser;

support means for guiding said foot pedals in primarily back and forth strokes variable rearward from said forward step-down position and

means for returning said foot pedals to said forward step-down position at the end of each stride independently of stride length.

23. (rejected) The exerciser of claim 22 wherein said means for returning returns the rearmost one of said foot pedals to said forward step-down position using step-down energy.

24. (withdrawn) The exerciser of claim 22 having arresting means, energy conversion means and energy storage means to recuperate energy of returning said foot pedals.

25. (withdrawn) The exerciser according to claim 22 further including power and control means connecting the downward force and deflection of a forward one of said pedals to the rearward one of said pedals to propel said rearward pedal forward.

26. (rejected) The exerciser in accordance with claim 22 wherein said means for returning includes fluid means.

27. (rejected) The exerciser in accordance with claim 22 wherein said means for returning comprises spring means.

28. (withdrawn) The exerciser according to claim 22 further including speed regulating means to control rearward motion of said foot pedals.

29. (withdrawn) The exerciser according to claim 28 wherein said regulating means comprises spring and damper means.

30. (withdrawn) The exerciser according to claim 28 wherein said regulating means comprises rotary resistance means.

31. (withdrawn) The exerciser according to claim 22 further including motorized speed regulating means to control rearward motion of said foot pedals.

**8. Claims Appendix (continued):**

32. (withdrawn) The exerciser according to claim 31 wherein said regulating means comprises frictional drive means interconnecting said motorized means and said foot pedals.

33. (withdrawn) The exerciser according to claim 31 wherein said regulating means comprises fluid pumping means interconnecting said motorized means and said foot pedals.

34. (withdrawn) The exerciser according to claim 31 further comprising :

sensor means to sense the user's foot force rearward or forward on said foot pedal and;

control means to receive a signal from said sensor means and to vary the speed of said motorized

speed regulating means in response to said foot force.

35. (withdrawn) The exerciser according to claim 22 further including foot pedal braking means to brake forward motion of said foot pedal when said user is standing on said foot pedal.

36 (rejected) The exerciser according to claim 22 further including cushion means integral with said foot pedals or said support means to cushion the user's step-down on said foot pedal .

37. (rejected) The exerciser according to claim 22 wherein said means for returning employs stride energy.

38. (withdrawn) The exerciser of claim 22 wherein said means for returning employs energy sources external to a user.

39. (withdrawn) The exerciser of claim 38 wherein said external energy sources include fluid power means.

40 (withdrawn) The exerciser of claim 22 wherein said means for returning employs stored energy from a plurality of sources.

41. (withdrawn) A reciprocating foot pedal exerciser for walking, jogging, running and stepping in place enabling automatically variable length strides, comprising:

foot pedals for receiving user foot action at a forward step-down position;

support means for guiding said foot pedals in primarily back and forth strokes variable rearward from said step-down position and

means returning said foot pedals to said forward step-down position at the end of each stride at velocities substantially greater than stride velocity.



**9. Evidence Appendix:**

Evidence relied on :

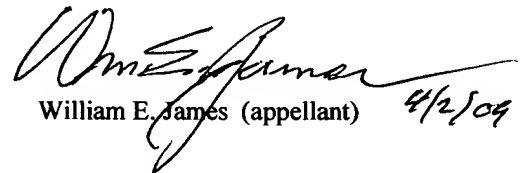
1. Applicant's Application Background, Specification, and Drawings,
2. Applicant's Amendment of Apr.30, 2004 (not entered),
3. Appeal Brief of June 12, 2007,
4. Office Action of Nov. 16, 2007 .

**10. Related Proceedings Appendix:**

- 1 Petition to the Director, Jan. 18, 2005
2. Appellant's Appeal Brief, June 12, 2007,
3. Office Action, Nov. 16, 2007.

Appellant has endeavored to provide all pertinent information and would sincerely appreciate the Board of Appeals' consideration and efforts to advance this Application which has suffered many delays. Appellant respectfully requests that his Amendment of Apr. 30, 2004 be entered and corrections and revisions therein and claims 22 through 41 (or at least the rejected claims) be allowed either as herein or with revisions in the amendment (only more clarifying words were added in the preamble of claim 22 and a "whereby" clause at the end).

Respectfully submitted,

  
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